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**Author(s):** Jillian Peterson

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**A multi-level, multi-method investigation of the psycho-social life histories of mass shooters**

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Principal Investigator:

Jillian Peterson

Associate Professor of Criminology and Criminal Justice

Hamline University

Jpeterson68@hamline.edu

Phone: (651) 523-2776

Submitting Official:

Donald Long

Director of Sponsored Programs

Dlong06@hamline.edu

Phone: (651) 523-2787

Hamline University

1536 Hewitt Avenue

Saint Paul, MN 55014

DUNS Number:

EIN:

## Project Overview

The mass public shooter database project (award number 2018-75-CX-0023) included four phases:

1. Creation of a comprehensive database of over 172 mass public shooters from 1966 to 2019 coded through over 150 individual-level psycho-social life history variables, including mental health history, trauma, interest in past shootings, and situational triggers.
2. Examination of situational variables and community-level socio-ecological factors of where mass public shootings took place (in schools, house of worship, workplaces, places of commerce, government, etc.), including, but not limited to, crime rates, measures of social inequality, availability of mental health resources, etc.
3. In-depth life history interviews with living mass shooters who are currently incarcerated and follow-up interviews with key stakeholders (e.g., family members, first responders, survivors) in the communities where shootings took place.
4. Dissemination of findings, creation of a public website, and implications for evidence-based prevention strategies.

We follow the Congressional Research Service definition of a mass public shooting: “a multiple homicide incident in which four or more victims are murdered with firearms—not including the offender(s)—within one event, and at least some of the murders occurred in a public location or locations in close geographical proximity (e.g., a workplace, school, restaurant, or other public settings), and the murders are not attributable to any other

underlying criminal activity or commonplace circumstance (armed robbery, criminal competition, insurance fraud, argument, or romantic triangle).”

## **The Research Team**

*PIs:* Dr. Jillian Peterson  
Dr. James Densley

*Data Analyst:* Dr. Gina Erickson

*Research Assistants:* Elliot Fay  
Stasia Higgins  
Amanda Jensen  
Miranda Janssen  
Hannah Klumb  
Kyle Knapp  
Jessica Lindgren  
Grace McMahon  
Hannah Peterson

## **Method**

### **The Database**

A total of 168 mass shootings were identified involving 172 mass shooters. The full database and detailed methodology and codebook are publicly available at [www.theviolenceproject.org](http://www.theviolenceproject.org). Informed by existing datasets, the research literature, and frequently asked questions about mass shooters, the authors generated a list of variables to be coded and created a codebook to define and detail how to code them. The codebook was then piloted on a small random sample of test cases and refined based on user-experience. This study was approved by the Institutional Review Board at Hamline University.

The database was constructed using open-source data, and cases were initially identified by combining all existing mass shooting databases and extensively examining each identified case (e.g., Siegel et al. 2020). Open-source lists of mass shootings from The Washington Post, Mother Jones, and other news outlets were the starting point. To code the variables of interest, the research team drew on first person accounts, such as the perpetrators' diaries, "manifestos" (i.e., public declaration of the motivations of the mass shooting by the perpetrator), suicide notes, social media and blog posts, audio and video recordings, interview transcripts, and personal correspondence. Secondary sources such as existing mass shooter databases, media coverage, documentary films and podcasts, biographies, monographs and academic journal articles, court transcripts, federal, state, and local law enforcement records, medical records, school records, and autopsy reports were also consulted.

Newspaper and online media stories are commonly employed as data sources in this type of work (Duwe, 2007; Huff-Corzine & Corzine, 2020; Taylor, 2018) and have been found to be an accurate source of information on mass killings, in part because public mass shootings receive such intense media coverage (Lankford & Madfis, 2018; Schildkraut et al., 2017). The team purchased subscriptions to newspapers.com, the archives of leading national papers (The New York Times, Washington Post, Los Angeles Times, and Chicago Tribune), plus the local newspaper of record in proximity to any given shooting. Within the publicly available database, every cell in the database is hyperlinked to the source where the information was found for full transparency. The team took every possible step to find and verify sources and to rigorously fact-check the data, but the end result is not perfect.

All coders were advanced undergraduate students studying psychology or criminal justice. Ninr coders were trained on the codebook and the definition of variables, and each case

and variable were coded four separate times by at least three different, independent coders to ensure reliability before being checked again by a designated Database Manager, who had final document control. Coders had frequent check-ins with the principal investigators (the first and second authors) and regular meetings to discuss coding questions. The entire process of building the database took 2 years to complete. In the final, fourth review of the database, changes were made in 2.0% of cells. This was often due to new information that became available during the course of the study because some cases were still being litigated.

Once the codebook was finalized and coders were trained in its use, the database was populated as follows; (1) each mass shooter meeting the inclusion criteria (see Congressional Research Service definition above) was investigated twice by two separate coders, working independently from each other; (2) the two resulting datasets were then merged and compared; (3) any discrepancies were flagged and reconciled by consensus of the principal investigators, who did their own fact-checking and weighed the quality and quantity of the evidence, typically giving precedence to primary source material; (4) the database was then divided up among the original coders and independently checked again (coders never checked their own work); (5) the database manager conducted a full and final check of every cell; (6) the principal investigators answered any queries resulting from the final check before approving publication.

Note, after officially launching the database to the public in November 2019, we decided to create a “Version 2” of the database based on feedback we received from users and our own desire to improve its accuracy and applicability. We updated the database with new mass shootings, corrected minor errors identified in the original database, and added over 50 new variables, as follows:

Expanded leakage

- How plans were leaked (i.e., writing, in person, social media)

- Who plans were led to (i.e., parent, friend, teacher, coworker, spouse)
- Specific or unspecific plans

Expanded signs of “crisis”

- Exact type of crisis prior to the shooting
- Recent or ongoing stressor
- Inability to perform daily tasks
- Rapid mood swings
- Increased agitation
- Abusive behavior
- Isolation
- Losing touch with reality
- Paranoia

New victim database - every person killed by a mass shooter in the database (n=1,210)

- Victim name
- Victim age
- Victim gender
- Victim race
- Victim relationship with perpetrator

New firearms database - each gun brought to a mass shooting coded separately (n=378)

- Exact make of gun
- Caliber
- Type of gun
- Was it used in the shooting?
- Was it modified?
- When was it obtained
- Legal purchase
- Illegal purchase
- Assembled with legal parts
- Gifted
- Theft

Role of psychosis in the shooting

0: Symptoms of psychosis played **no role** in the crime (i.e., the perpetrator did not experience any symptoms of psychosis in planning or committing the crime);

1: Symptoms of psychosis played a **small role** in the crime (i.e., the perpetrator experienced at least one symptoms of psychosis while planning and/or committing the crime, but had another primary motivation or precipitating event);

2: Symptoms of psychosis played a **significant role** in the crime (i.e., the perpetrator experienced at least one symptom of psychosis while planning and/or committing the crime, was responding to delusions or hallucinations in planning and/or committing this crime, but also had additional motive(s));

3: Symptoms of psychosis played a **primary role** in the crime (i.e., the perpetrator experienced at least one symptom of psychosis while planning *and* committing the crime,

was responding to delusions or hallucinations in planning and committing the crime, and had no other discernible motive).

#### New violence variables

- History of domestic violence
- Previous sex offense
- Use of violent video games
- Firearm proficiency

#### New mental health variables

- Mental health treatment - mandatory or voluntary
- Mental health treatment within six months of the shooting
- Family history of mental illness

#### New family variables

- Childhood socioeconomic status
- Birth order
- Number of siblings
- Older siblings
- Younger siblings

#### Other new variables

- Performance in school
- Community involvement
- Hate group affiliation
- Connection to fiction or pop culture

In total there are now 166 independent variables in the database. There are basic demographic variables: age, education, gender, sexual orientation, race, religion, military service, immigrant status, and any criminal, gang or terrorist affiliation. There are also more complex variables such as whether they grew up with a single parent, whether any parents died by suicide, if they had gone through a recent breakup or employment trouble, and if they told others about their plans to kill ahead of time (known as “leakage”). There is a significant portion on mental health including previous hospitalized for mental illness, previous counseling, prescribed antipsychotics, suicidal tendencies, or substance abuse. There is also a component on the firearms used: whether they were purchased legally, illegally, or stolen, and the method of



purchases, such as private sales, gun shows or stores. The database includes separate tabs on the more than 370 firearms used in mass shootings and the 1,200 victims of who lost their lives to them.

## **Qualitative Interviews**

In addition to the quantitative examination of individual-level life history variables, this project also included a qualitative examination of the lives of mass shooters to more closely examine the motivations behind mass shootings. Qualitative interviews allow for a deeper understanding of the complex life histories and multiple motivations of violence. Recruitment began by identifying all living mass shooters in the United States who were sentenced and currently incarcerated—31 in total. In April 2018, after receiving the approval of Hamline University’s Institutional Review Board, a brief recruitment letter was mailed to each of these individuals at the correction agency or facility where they were housed. This letter described the project and asked each potential participant if they were interested in being interviewed anonymously for a research study about their life history, without any pay or compensation. Letters were not mailed to perpetrators who were housed in psychiatric hospitals or found not guilty by reason of insanity.

Nine perpetrators responded to the initial recruitment letters (29% of the population). Three letters were returned because the perpetrator was not allowed to receive mail. Two of the nine responding perpetrators declined (via their attorneys) owing to pending litigation and appeals. Seven agreed to be interviewed.

A written consent form was then mailed to each participant detailing the benefits and risks of the study. Brief phone calls were subsequently held to answer any questions about the

consent form or the research project. Research in prisons is inherently challenging, especially when some of their most notorious and dangerous inmates are the subject of your research. Owing to constraints imposed by state and federal corrections departments, we were denied access to two of the participants and face-to-face interviews were not permitted. Five of the perpetrators were able to sign the consent forms and send them back to us. We conducted interviews via telephone and/or letter correspondence. In most cases, we exchanged one or two phone calls and, in some cases, up to 20 letters examining the lives and crimes of our interviewees (in the tradition of psychological autopsies). Interview questions asked about their childhood and adolescence, family, school and work history, health and mental health histories, access to firearms, and other factors of interest. In two cases, interviewees voluntarily signed a record release form to allow us to gather records from hospitals, schools, and social services that corroborated their firsthand accounts.

While five mass shooters are hardly representative of all mass shooters, they amount to about a sixth of all mass shooters currently alive and incarcerated, thus they do provide important insight. The interview participants were all male, and 67% white, which is representative of the total population of mass shooters in the database.

In addition to interviewing the five mass shooters, the principal investigators visited the sites of five mass shootings from the database (two from our case studies), and interviewed conducted a series of “community interviews”. In total, we interviewed 43 people: 16 were personally connected to mass shooters as family, friends, romantic partners, work colleagues, or as survivors of their shootings; six were grieving family members, who offered a victims’ perspective; five provided personal insights into averted mass shootings; the rest were either first

responders or community stakeholders in shooting tragedies or provided some other professional insight and expertise pertinent to our investigation. Following a mix of purposive and snowball sampling, interviewees were accessed via chain referral from our respondents in prison or via direct contact and communication. Some participants reached out to the principal investigators directly after having learned of our study in the media and their identities were verified using publicly available records. The interviews were semi-structured and lasted 90 minutes on average, although some people we interviewed multiple times and some interviews lasted as long as eight hours. Interviews were conducted largely in public spaces, such as coffee shops, but on occasion in private homes and businesses and later via Zoom after the COVID-19 pandemic. Owing to approved ethical protocols, no interviews were recorded but detailed notes were taken by hand using ethnographic short-hand. Two interviewers were present at each interview, one to ask questions and one to take notes.

## **Findings**

### **The Database**

**Mass Shooting Trends.** Mass shootings are becoming more frequent, and they are getting deadlier. The Violence Project database spans more than 50 years, yet 20% of the 167 mass shootings in that period occurred in the last five years. More than half of the shootings have occurred since 2000 and 33% since 2010. The deadliest years were 2018, with nine mass shootings, followed by 1999 and 2017, with seven mass shootings each. The death count per shooting is also rising dramatically. Sixteen of the 20 most deadly mass shootings in modern history occurred in the last 20 years, eight of them in the last five years. For decades, the toll of

mass shootings has risen steadily. During the 1970s, mass shootings claimed an average of 8 lives per year. In the 1980s, the average rose to 15. In the 1990s it was 21 and 2000s it reached 24. This decade has seen a far sharper rise. Today, the average is 51 deaths per year.

The most common mass shootings are in workplaces (28.1%), followed by restaurants/bars/nightclubs (14%), retail establishments (12.9%), houses of worship (6.4%), Kindergarten-12<sup>th</sup> grade elementary, middle, and high schools (7.6%), colleges/universities (5.3%), government buildings/places of civic importance (2.9%). 22.8% are in other public spaces, like neighborhoods and campsites. More mass shootings have occurred in the U.S. South and West than in the Midwest or Northeast. Notably, 64% of all house of worship shootings took place in Southern states. Texas had the most, with four, followed by Louisiana, with two, and South Carolina, with one. Wisconsin was the only non-Southern state that had two mass shootings — one in Oak Creek, and an earlier one at the Living Church of God in Brookfield. Colorado and Pennsylvania each had one mass shooting. Eight percent of K-12 school mass shootings took place in urban areas. Most occurred in rural and suburban areas, evenly at 46%.

**Mass Shooter Demographics.** In this study, 97.7% of the perpetrators ( $N=172$ ) were male (there were four female perpetrators). Their ages ranged from 11 to 70 years old with a mean of 34.1 ( $sd=12.2$ ). Perpetrators were 52.3% White, 20.9% Black, 8.1% Latinx, 6.4% Asian, 4.2% Middle Eastern, and 1.8% Native American. The most common location of mass shooting was a workplace (30.8%), followed by a retail establishment (16.9%), bar or restaurant (13.4%), residential location (8.1%), outdoors (8.1%), K-12 school (7.6%), place of worship (6.4%), college or university (5.2%), and government or place of civic importance (3.5%). Most perpetrators had a prior criminal record (64.5%) and history of violence (62.8%), including

domestic violence (27.9%), and 28.5% had a military history. The majority of perpetrators died on scene, either by their own hand (38.4%) or they were killed by law enforcement (20.3%).

**Trauma, Suicidality, and Crisis.** The life histories of mass shooters are complex. Using available records, 31% of them were coded as experiencing severe childhood trauma (in K-12 school shooters that number was 68%) and over 80% of mass shooters were in crisis (i.e., their current situation was overwhelming their ability to cope) prior to their crime, which was communicated to the people around them through a marked change in behavior. Mass shooters often commit suicide after their attacks, or at least provoke law enforcement to do it for them (known as “suicide by cop”) and the data suggest that suicide (i.e., intentional self-inflicted death) and homicide (i.e., the deliberate and unlawful killing of another person) may be conceptually linked. 30% of mass shooters in the database were suicidal prior to the shooting, and an additional 39% of mass shooters were suicidal during the shooting. These numbers were significantly higher for K-12 school shooters (92%) and college/university shooters (100%), respectively.

**Mental Health.** Mental health variables are not mutually exclusive, and many perpetrators fell into multiple categories. Among perpetrators in the database, sources indicate that 19.8% had a history of previous hospitalization for psychiatric reasons, 29.1% had a history of counseling, and 23.3% had a known history of taking psychiatric medication (comparable to rates among the U.S. general population; Moore & Mattison, 2017). In terms of diagnosis, 15.7% showed evidence of a mood disorder diagnosis, 6.4% showed evidence of an autism spectrum disorder diagnosis, and 26.7% showed evidence of a psychotic disorder diagnosis (compared to 1% of the general population). The data indicate that symptoms of psychosis played no motivating role in 69% of cases, a small role in 11% of cases, a significant role in 8.7% of cases,

and psychosis played a primary role in another 10.5% of cases. If hospitalization, counseling, psychiatric medication, and previous diagnosis are combined, 58.7% of perpetrators had a mental health history, somewhat higher than general population levels (Kessler, Berglund & Demler, 2005).

**Motivation Over Time.** The motivations of mass shooters were examined as a percentage of total mass shooters per decade for the 1970s, 1980s, 1990s, 2000s, and 2010s (Figure 1). The five mass shooters from the 1960s and one from 2020 were excluded from the analysis in order to create equal ten-year intervals and consistent comparisons. The data show that psychosis has remained relatively stable over time, although it peaked in the 2000s by featuring in 27% of mass shootings in that decade. The only statistically significant difference in motivations by decade is the fall in shootings motivated by employment issues (generally workplace shootings) since the 1990s,  $F(4,162)=4.35$ ,  $p=0.002$ .

**Warning Signs.** Almost half of all mass shooters (48%) leaked their plans in advance, meaning they communicated to a third-party intent to do harm to a target. That third party included family members, friends, and colleagues, but also strangers and law enforcement professionals. Communication was face-to-face, over the telephone, in writing, and via the internet and social media. 23.4% of mass shooters left behind a legacy token such as a “manifesto” that was a clue to their actions. One in five mass shooters (21.6%) studied other mass shooters. While mass shootings may appear random, about 70% of mass shooters knew at least some of their victims—K-12 school and workplace shooters in particular were “insiders”—current or former students and employees—which has implications for physical security measures and the use of active shooter drills in these settings.

**Firearms.** The majority of mass shooters use handguns (77.2%) and 25.1% use assault rifles in the commission of their crimes. 48% use one gun, 22% use two, 15% use 3, and 15% use four or more guns. Of the known data (32.5% of cases could not be corroborated), 77% of mass shooters purchase at least some of their guns legally, 13% made illegal purchases, and 19% stole their guns. Among K-12 school shooters, over 80% stole their guns from family members because they were not old enough to purchase firearms. By our calculation, background checks on all gun sales or transfers may have prevented at least 16 mass shootings, saving over 100 lives, while ending the “default proceed” option on federal checks that take longer than three days may have averted the 2015 Charleston church shooting.

### **Qualitative Interviews**

This section reports findings from the qualitative interviews with five mass shooting perpetrators. Owing to the small sample (although about 20% of the population of living incarcerated mass shooters who killed four or more people in public in the United States), the qualitative data do not lend themselves well to generalization because each person’s story is unique. However, they do allow for a more in depth understanding of the important events, or “turning points,” that shaped each individual’s pathway to violence. The data suggest there is no one profile of a mass shooter, but the mass shooters in our sample did share four things in common: (1) early childhood trauma and exposure to violence at a young age; (2) an identifiable grievance or crisis point; (3) validation for their beliefs, have studied past shootings to find inspiration; and (4) the means and opportunity to carry out an attack. These four themes emerged inductively during the data analysis process and were further supported by the wider stakeholder interviews conducted but not reported on here owing to the constraints of the article.

**Trauma.** First, all five of our perpetrator case studies shared Adverse Childhood Experiences. The early lives of our interviewees were punctuated by exposure to physical and sexual abuse, emotional or physical neglect, domestic violence; the death (often suicide) of a parent or experiencing parental separation or divorce. Any adversity met within the family was matched by equally adverse community experiences, including substance use and abuse and bullying. The following quotes speak to how toxic stress shaped the early lives of our sample and how mass shootings may have very deep roots:

*My father killed himself... [he] was a bitter, angry, abuse [sic] man. ... I know he was abused physically and I suspect sexually. ... He verbally abused all of us on a daily basis, beat my mom and I when we displeased him in any way, sexually abused my sister ... I lived in fear of my dad. Many times he beat me as if I were a grown man (fists and boots). (Respondent 1)*

*My father would sometimes hit or grab my mother. (Respondent 2)*

*I was set on fire at the skate park about 2 months before my crime. Someone had sprayed lighter fluid on my legs from under a bench and soaked my legs and threw a match on me and caught my pants on fire. (Respondent 5)*

Research shows that those who have experienced trauma as children were more likely to face a host of difficulties as adults, including having violent relationships, becoming dependent on drugs or alcohol, having a psychiatric disorder and becoming depressed or



suicidal (Duke et al., 2010). For this reason, childhood trauma is an area ripe for research in the context of mass shootings.

**Crisis.** Beyond the early exposure to violence, all our interviewees developed significant mental health concerns in adolescence, including depression, anxiety, hallucinations and delusions, self-harm, and suicidal ideation. For example:

*The abuse by my friend's stepdad was a huge impact. I thought it was my fault he abused me and that because I didn't stop it I was gay. I hated him for doing it and myself for thinking I allowed it. (Respondent 5)*

*I was depressed, I hated myself and needed to escape. I wanted to hurt others like I'd been hurt. I hoped to die, and [first] prove I wasn't all the names people called me. (Respondent 4)*

These mental health concerns cannot be connected in any causal way to the mass shootings that followed, but they were a common, consistent, theme in the data. Further, the participants in this study all reached an identifiable crisis point in the weeks or months leading up to the shooting. Crises were in each case personal crises that turned the respondents actively suicidal. For example:

*I tried to shoot myself with a shotgun. ... I tried to strangle myself with a seatbelt (Respondent 2)*

*I had a lot of suicide ideation. I put a loaded pistol in my mouth, I tried to buy heroin to OD when I was 14 (Respondent 5)*

**Script.** In the age of 24-hour cable news and social media, there are scripts to follow that teach the practice of mass shootings and promise notoriety. Our interviews indicate that mass shooters study the actions of other mass shooters and seek validation for their methods and motives. In particular, the 1999 Columbine High School shooting was commonly mentioned by our participants, and frequently came up in our database.

*I was curious. After researching the Columbine massacre, I found a link to other school shootings and decided to read on them. I related a lot to [Name of mass shooter] and [Name of mass shooter]. [Name of mass shooter] was about my age and suffered from depression like I was. (Respondent 2)*

Other perpetrators used scripts from books or movies. One of our participants modeled his shooting on the movie *Unforgiven*:

*I was drinking along with the Clint Eastwood in “Unforgiven”. I had peeled the label from my bottle & knocked the plastic from the cork so that my bottle looked just like the whiskey bottle that Clink was drinking from. (Respondent 1)*

**Opportunity.** Finally, mass shooters have the means and access to carry out their plans. Our respondents needed access to both their chosen site and firearms. Two of our interviewees

stole their weapons from their parents, largely because they were too young to purchase themselves at the time. One (Respondent 5) took his father's .22 revolver and stated plainly: "I stole the pistol from my Dad." The others bought them legally at sporting goods or department stores. One even posed for photographs with his murder weapon prior to the shooting.

### **Limitations**

The database was built using publicly available information which was necessary but leaves room for bias and misinformation because the source data were originally gathered for purposes different from our own. The Health Insurance Portability and Accountability Act of 1996 and other data privacy laws limit full access to official records for validation purposes. Media outlets have their own agendas and biases (Schildkraut et al. 2017). Some cases are well reported on, while others are not (Lankford & Madfis, 2018). There is also variability in how the media assign blame to mass shooters (Silva, 2020b). A recent study found that holding all aspects of the crime equal, the media tend to be more sympathetic toward White mass shooters and inclined to describe them as mentally ill or a victim of society and circumstance compared to their Black counterparts, which the authors took as evidence of inherent racial bias (Duxbury et al., 2018).

However, the presence (or not) of a White shooter or mental illness are not the only factors dictating the nature and extent of media coverage of mass shootings. The victim profile also matters, to the extent that the shooting of Representative Gabrielle Giffords in Tucson, Arizona in 2011 received a lot of press coverage because of who the victim was, not because the perpetrator was motivated by mental illness. Generally speaking, mass shootings in K-12 schools

and military bases, mass shootings with higher body counts or younger victims, shootings perpetrated with assault rifles, and shootings clustered with other shootings tend to receive more attention. The news cycle also matters. In August 2019, there were three high profile shootings in a week, first in Gilroy, California, then back-to-back shootings in El Paso, Texas, and Dayton, Ohio. Then, 27 days later, in Midland-Odessa, Texas, a 36-year-old went on a shooting spree from his vehicle, killing seven and injuring 23. Of all these shootings, El Paso received the most media attention because, just hours before he opened fire at Walmart, the shooter published a short screed disparaging immigrants and warning of an “invasion” of Hispanics. That term is one that President Donald Trump himself used to describe migrants seeking entry to the United States from Mexico and the media’s focus was on whether the President’s angry rhetoric was responsible for fomenting a rise in hate, and in this case, violence.

Still, we tend to know more about recent cases, which reflects better reporting over time and more advocacy and awareness around the topic of mass shootings. The period of time at issue (1966–2020) spans enormous evolution in the nature of mass media, including the invention of the internet and social media, and associated changes in the nature of journalism; not to mention critical developments in politics, Second Amendment jurisprudence (e.g., a federal ban on assault weapons from 1994 and 2004), firearm technology, “routine activities” in public spaces (e.g., Silva & Greene-Colozzi, 2020), and so on. News coverage spans changes in diagnostic nomenclature, treatment practices, access to care, and other major changes in health care, law enforcement, and criminal justice.

There is a low base rate of mass shooters and mass shootings are extreme and rare events—discrete occurrences of infrequently observed phenomena. For this reason, readers

should interpret trends over time with caution. We also caution against using the data for predictive modeling and/or cherry-picking one variable at a time to tell a particular story. For example, we see relatively high rates of mental illness among mass shooters—and rates of thought disorder that are considerably higher than those found in the general population. But this does not mean mass shootings are exclusively a mental illness problem—the vast majority of people with mental disorders are never violent, and are more likely to be victims of violence than offenders.

To differentiate between mass shootings that occur in domestic settings versus relatively public places, and to separate offenders who only target family members or intimate friends from those who indiscriminately select their victims, we have followed the definition of mass public shooting. Gang, drug, or organized crime-related shootings typically excluded from our figures because felony-homicide offenders have different profiles and motivations. Mass public shootings are incidents occurring in public places, like schools, workplaces, and places of worship, involving four or more deaths—not including the shooter. Still, many factors influence whether a threshold of four or more people killed is reached, for example the accuracy of the shooter, the type and caliber of weapon used, the number of rounds fired, proximity to the nearest hospital, and the actions of first responders.

### **Applicability**

The goal of this project was to look for patterns in the lives of mass shooters that could help inform new prevention and intervention strategies. This was, by intention and design, a public criminology project – meant to provide high-quality, easy-accessible data to policy

makers and researchers. The database has already been downloaded thousands of times and used by scholars, researchers, journalists, and policymakers. For example, Voice of America created an interactive history of mass shooters based on our data, available here <https://projects.voanews.com/mass-shootings/>. The Los Angeles Times similarly built a tool to explain how many mass shootings might have been prevented by stronger gun laws (<https://www.latimes.com/projects/if-gun-laws-were-enacted/>). Google Scholar reports that the database has been cited in nine peer-reviewed research articles already.

Understanding the life histories of mass shooters is critical to developing policies to prevent them from occurring. The findings of this study demonstrate the complexity of the lives of mass shooters and suggest possible new prevention strategies and avenues for future research.

**Insider threat.** Mass shootings have prompted a debate among proprietors, school administrators, and religious leaders about the need to balance openness and inclusiveness with physical security measures. The data here show that most K-12 school shooters, college shooters, and workplace shooters are insiders – students or employees of the shooting site. This means the perpetrators of the shooting are familiar with security procedures and have run through the same active shooter drills as everyone else and are trained in the site’s response plan. This finding raises concerns that inside knowledge can be used to increase casualties, rather than decrease them.

**Leakage and warning signs.** The majority of mass shooters leaked their plans prior to the shooting, either on social media, in writing, by phone, or in person. This leakage may provide an important opportunity for intervention. Anonymous reporting systems may increase the likelihood of reporting leakage and is an important area of future research. The majority of mass shooters in the database were also suicidal and intended to die in the act. Criminally charting

threats of violence may increase the risk of violence by intensifying their grievance and crisis. Threat assessment teams such as the Virginia Model, which assess threats of violence and intervene with a holistic approach to intervention have shown promising results.

**Trauma.** Trauma was common in the backgrounds of mass shooters in the database and in the qualitative case studies. Early intervention through school-based services may be a key component of early prevention. There are new programs designed to promote social emotional learning in schools or build empathy and reduce social isolation that show promise in mitigating the impact of early exposure to trauma and violence.

**Crisis.** Often in our public discourse, mass shootings are blamed on mental illness. Our findings indicate that the role of mental illness in motivating mass shootings is not a black or white issue, but a complicated and complex one. While mental health histories were common, for example, psychosis played a role in one-third of mass shootings, but the primary role only 10% of the time. For the other 90% of mass shootings committed since 1966 where four or more people were killed, perpetrators had other motivations.

Still, the data show nearly all the mass shooters were in a state of crisis in the days or weeks prior to the shooting. This was related to a job loss, a relationship ending, mental health, or another stressor. Crisis intervention training, which involves identifying individuals in crisis, learning verbal and nonverbal de-escalation strategies, and connecting individuals in crisis to long-term resources is a promising prevention strategy. Since the majority of mass shooters are suicidal, suicide prevention training and resources are important areas to explore.

**Script.** The data show many mass shooters study previous mass shooters and many are radicalized online. Media literacy education to help people more critically consume and counter the extremist propaganda that facilitates violence may be effective. Not naming the shooter or

showing their photograph may be a key first step for the media (Lankford & Madfis, 2017). The #nonotriety movement arose to address this issue – calling for decreasing the duration of news coverage after a shooting and not providing unnecessary accounts of the shooter’s actions before, during, or after a shooting, because when we create spectacles out of tragic situations we inadvertently signal that mass murder is an effective means of communication. Guidelines from the American Foundation to Prevent Suicide may be applicable in the case of mass shootings — avoiding sensationalistic headlines, downplaying focus on the method of death, and including information on how to get help for suicidal impulses.

**Firearms.** Our data indicate that the majority of shooters used handguns that they obtained legally. Younger school shooters most often procured guns from friends and family members. These findings support safe storage of firearms campaigns and education for parents, especially of young men in crisis. There are no federal laws and few state laws requiring safe storage of guns, and no federal standards for firearm locks, which are distributed by law with every sale, but with no mandate to actually use them. Only six states—California, Massachusetts, Minnesota, Nevada, New York, Virginia—and the District of Columbia have laws requiring the safe storage of guns in the home. The data also support Extreme Risk Protection Orders, or “red flag” laws, that permit police or family members to petition a state court to order the temporary removal of firearms from a person who may present a danger to others or themselves.

### **Artifacts**

This NIJ-funded project produced the following outputs:

- Peterson, J., & Densley, J. (2020). *The Violence Project database of mass shootings in the United States, 1966–2020*. <https://www.theviolenceproject.org>
  - A website was created to host the database and provide a forum for the public to interact with the project and Principal Investigators: <https://www.theviolenceproject.org>.



- The full database, including the codebook, is publicly available. It has been downloaded thousands of times by academics, policy makers, and journalists.
- The Principal Investigators (Peterson and Densley) secured a book contract with Abrams in February of 2020. The full manuscript was written from March through December of 2020. The anticipated publication date for the book is September 2021. The book reports the full results of both the quantitative database and qualitative interviews.
  - Peterson, J., & Densley, J. (2021) *The violence project: understanding the lives of mass shooters* (working title). Abrams.
- We published two peer-reviewed journal articles based on the data, published in open access journals.
  - Peterson, J., Densley, J., & Erickson, G. (2021). Presence of armed school officials and fatal and nonfatal gunshot injuries during mass school shootings, United States, 1980-2019. *JAMA Network Open*.
  - Peterson, J., Densley, J., Knapp, K., Higgins, S., & Jensen, A. (revise and resubmit). Mental illness and mass shootings: A systematic examination using publicly available data. *Law and Human Behavior*.
- We wrote 13 essays / op-eds based on the data, which are more readily accessible by the general public than peer-reviewed journal articles. The articles received wide-spread media coverage.
  - Peterson, J., & Densley, J. (2020, Dec. 9). US gun violence: too many people have died in 2020 – and COVID played a larger part than you think. *The Conversation*.
  - Peterson, J., & Densley, J. (2019, Dec. 30). Why do people attack places of worship? Here's what we know from our mass shootings database. *Los Angeles Times*.
  - Peterson, J., & Densley, J. (2019, Nov. 14). There is no single profile of a mass shooter. Our data show there are five types. *Los Angeles Times*.
  - Peterson, J., & Densley, J. (2019, Oct. 9). What school shooters have in common. *Education Week*, 29(8), 20.
  - Densley, J., & Peterson, J. (2019, Sept. 1). We analyzed 53 years of mass shooting data. Attacks aren't just increasing, they're getting deadlier. *Los Angeles Times*.

After the string of mass shootings in August 2019, we wrote an op-ed for *The Los Angeles Times*, sharing preliminary results of our research and our working model that “mass shooters had four things in common.” It went viral, receiving over one million clicks in its first week and leading the paper’s website for days. Most of the traffic came from social media, where the article became its own “Twitter moment,” widely shared by a number of influential figures. We gave about 50 local, national, and international media interviews that week including *CBS This Morning*, *CNN Tonight with Don Lemon*, *America’s Newsroom* on Fox News, and NPR’s *All Things Considered*.

- Peterson, J., & Densley, J. (2019, Aug. 4). We have studied every mass shooting since 1966. Here’s what we’ve learned about the shooters. *Los Angeles Times*.
  - *Nationally syndicated, including Common Dreams.*
  - Reprinted as “mass shootings are socially contagious” in *Arkansas Democrat-Gazette*.
  - Reprinted as “National View Column: Ways to stop the next one emerge from studying mass shooters” in *Duluth News Tribune*.
  - Reprinted as “Our data unveiled four commonalities of mass shooters” in *Star Tribune*.
  - Reprinted in Rottenberg, A.T. & Winchell, D. H. (2020). *Elements of argument: A text and reader* (13<sup>th</sup> Ed.). New York: Bedford/St. Martin’s.
- Peterson, J., & Densley, J. (2019, June 7). School shootings: What administrators need to know. *Minnesota Association of School Administrators, The Leaders Forum*.
- Peterson, J., & Densley, J. (2019, May 9). Colorado shooting eerily recalls Columbine massacre. *The Conversation*.
  - Reprinted as “Columbine created the script school shooters now follow” in *Fatherly*.
- Peterson, J., & Densley, J. (2019, May 2). University of North Carolina at Charlotte shooting has these things in common with other campus shootings. *The Conversation*.
- Peterson, J., & Densley, J. (2019, Apr. 17). How Columbine became a blueprint for school shooters. *The Conversation*.
  - Reprinted as “School shootings didn’t start in 1999 at Columbine. Here’s why that disaster became a blueprint for other killers and created the ‘Columbine generation’” in *The Washington Post*.
- Densley, J., & Peterson, J. (2019, Mar. 18). Terrorism is a performance. Don’t watch. *Star Tribune*.

- Densley, J., & Peterson, J. (2019, Feb. 21). We can do more to prevent mass workplace shootings like Aurora, Illinois. *USA Today*.
- Peterson, J., & Densley, J. (2019, Feb. 8). School shooters usually show these signs of distress long before they open fire, our database shows. *The Conversation*.
- Owing to the COVID-19 pandemic, a number of scheduled public presentations were cancelled, including accepted panels at the 2020 annual meetings of American Psychological Association and American Society of Criminology. However, we still delivered numerous presentations during the two-year study period, at national conferences and local events.
  - Peterson, J. & Densley, J. (2020, Nov. 18). *Reflections on researching the lives and crimes of mass shooters*. Advancing and Understanding and Informing Prevention of Public Mass Shootings: Findings from NIJ Funded Studies, Part 2. NIJ Webinar.
  - Peterson, J. (2020, September). *The Violence Project: Understanding mass shootings in America*. Leo Lecture at Hamline University. St. Paul, MN.
  - Densley, J. (2020, Jul. 18). *Emergency response: multiple victim shootings*. Ramsey County Sherriff Chaplain Corps, Shoreview, MN.
  - Densley, J. & Peterson, J. (2020, Jun. 24). *The Violence Project*. FBI Minneapolis Citizens Academy Alumni Association, St. Paul, MN.
  - Densley, J. (2020, Mar. 11). *Keynote address - Understanding mass shootings: pathways to prevention*. The 45th Annual Conference of the Forensic Mental Health Association of California, Monterey, CA.
  - Densley, J. & Peterson, J. (2020, Feb. 6). *Evidence-based school shooting prevention: What principals need to know*. Paper presented at the Minnesota Elementary School Principals' Association Institute 2020, Bloomington, MN.
  - Densley, J. & Peterson, J. (2020, Jan. 27). *Mass shooting prevention through research*. InfraGard MN January 2020 General Member Meeting, Hopkins, MN.
  - Peterson, J. & Densley, J. (2020, Jan. 10). *Understanding and preventing school gun violence*. The Minnesota Assessment Group and the College of Education & Human Development at the University of Minnesota, Roseville, MN.
  - Peterson, J., Densley, J., Erickson, G. (2019, November 16) *The mass shooter database: a foundation for data-driven policy* (3 papers, full thematic panel). Meeting of the American Society of Criminology, San Francisco, CA.

- Peterson, J. (2019, November). *Keynote address - Understanding and preventing workplace and hospital violence*. Hennepin Orthopedic & Trauma Seminar and Nursing Conference. Minneapolis, MN.
  - Peterson, J. & Densley, J. (2019, Oct. 30). *Understanding and preventing school gun violence*. Center for Applied Research and Educational Improvement, University of Minnesota.
  - Densley, J. & Peterson, J. (2019, Oct. 9). *Gun violence*. Saint Paul Children's Collaborative, St. Paul, MN.
  - Densley, J. (Oct. 4, 2019). *The Violence Project: why mass shootings occur and how we can stop them*. The Hennepin County Family Violence Coordinating Council, Minneapolis, MN.
  - Peterson, J. & Densley, J. (2019, Sept. 25). *A multi-level, multi-method investigation of the psycho-social life histories of mass shooters*. National Institute of Justice Topical Meeting on Rare Incidents Data Collection Models to Advance Research on Mass Violence, San Antonio, TX.
  - Peterson, J. & Densley, J. (2019, Sept. 10). *Understanding and preventing mass shootings*. Rotary Club of Saint Paul #10, St. Paul, MN.
  - Peterson, J. & Densley, J. (2019, Jul. 23). *Evidence-based school violence prevention*. Education Minnesota, Saint Paul, MN.
  - Densley, J. (Jun. 20, 2019). *De-mobilization of hate: Addressing mass violence in schools and society*. The Hamline University Center for Justice and Law, Saint Paul, MN.
- We spoke with the Senate Homeland Security Committee about our findings and also testified twice before the Minnesota legislature about the results of our project and their implications for public policy.
    - Minnesota House Public Safety Committee (February 2020)
    - Minnesota House Education Committee (February 2020)
  - Our work was prominently cited by the following works:
    - Boston University (2020). *Violence Against Women and Public Mass Shootings*.

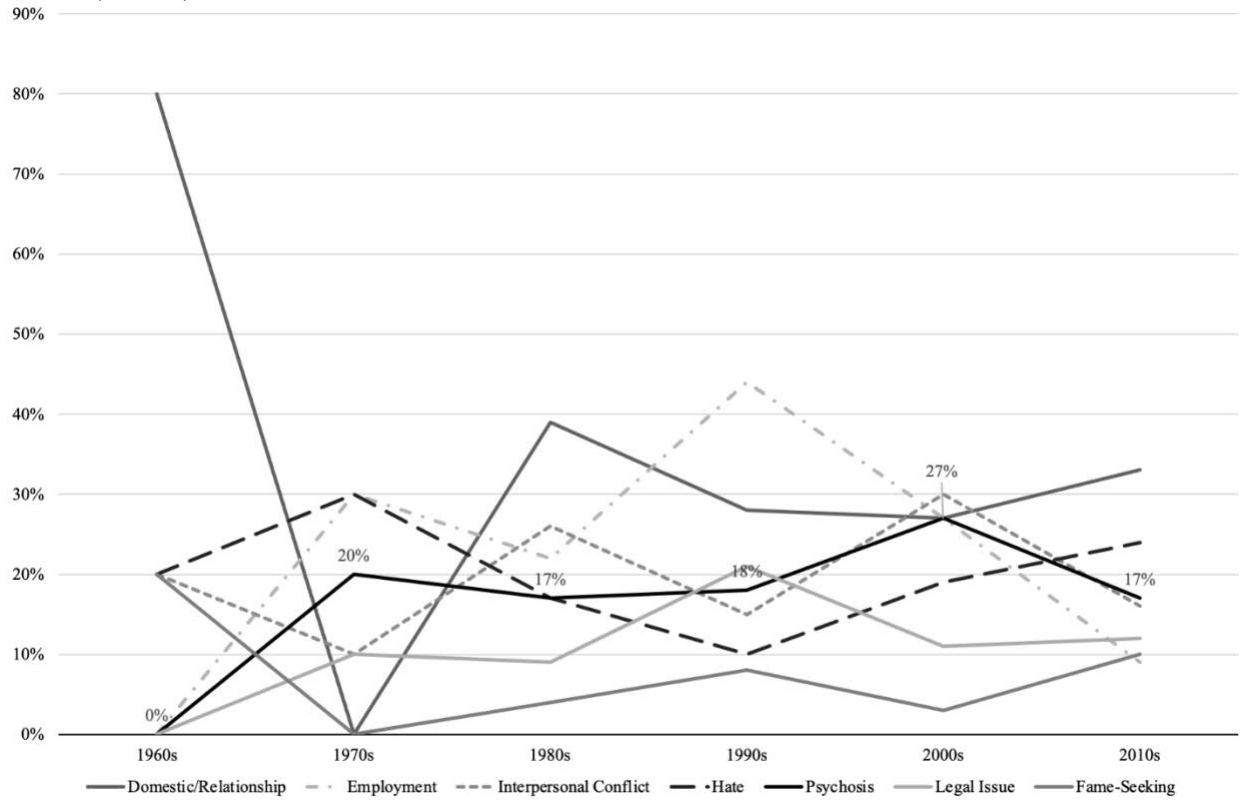
- New York State Bar Association (2020). *Final Report from the Task Force on Mass Shootings & Assault Weapons.*
- Everytown for Gun Safety, the American Federation of Teachers, and the National Education Association (2020). *The Impact of School Safety Drills for Active Shootings.*

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- Duxbury, S. W., Frizzell, L. C., & Lindsay, S. L. (2018). Mental illness, the media, and the moral politics of mass violence. *Journal of Research in Crime and Delinquency*, *55*(6), 766–797. <https://doi.org/10.1177/0022427818787225>
- Huff-Corzine, L., & Corzine, J. (2020). The devil's in the details: Measuring mass violence. *Criminology & Public Policy*, *19*(1), 317–333. <https://doi.org/10.1111/1745-9133.12482>
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- Schildkraut, J., Elsass, H. J., & Meredith, K. (2017). Mass shootings and the media: why all events are not created equal. *Journal of Crime and Justice*, *41*(3), 223–243. <https://doi.org/10.1080/0735648x.2017.1284689>
- Siegel, M., Goder-Reiser, M., Duwe, G., Rocque, M., Fox, J. A., & Fridel, E. E. (2020). The relation between state gun laws and the incidence and severity of mass public shootings in the United States, 1976–2018. *Law and Human Behavior*, *44*(5), 347–360. <https://doi.org/10.1037/lhb0000378>
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- Silva, J. R., & Greene-Colozzi, E. A. (2020). Mass shootings and routine activities theory: The impact of motivation, target suitability, and capable guardianship on fatalities and injuries. *Victims & Offenders*, 1–22. <https://doi.org/10.1080/15564886.2020.1823919>
- Taylor, M. A. (2018). A comprehensive study of mass murder precipitants and motivations of offenders. *International Journal of Offender Therapy and Comparative Criminology*, *62*(2), 427–449. <https://doi.org/10.1177/0306624x16646805>

**Figure 1**

*The motivations of mass shooters as a percentage of total mass shooters per decade, 1960s–2010s (n=171)*



*Note.* Shooters may have more than one motivation, therefore totals exceed 100%. 1960s only 4 years (1966–69)

| Motivation             | 1960s<br>(n=5) | 1970s<br>(n=10) | 1980s<br>(n=23) | 1990s<br>(n=39) | 2000s<br>(n=37) | 2010s<br>(n=58) | Total<br>(n=171) |
|------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Domestic/Relationship  | 4<br>(80%)     | 0 (0%)          | 9<br>(39%)      | 11<br>(28%)     | 10<br>(27%)     | 19<br>(33%)     | 53<br>(30%)      |
| Employment Issue       | 0 (0%)         | 3<br>(30%)      | 5<br>(22%)      | 17<br>(44%)     | 10<br>(27%)     | 5 (9%)          | 40<br>(23%)      |
| Interpersonal Conflict | 1<br>(20%)     | 1<br>(10%)      | 6<br>(26%)      | 6<br>(15%)      | 11<br>(30%)     | 9<br>(16%)      | 34<br>(20%)      |
| Hate                   | 1<br>(20%)     | 3<br>(30%)      | 4<br>(17%)      | 4<br>(10%)      | 7<br>(19%)      | 14<br>(24%)     | 33<br>(19%)      |
| Psychosis              | 0 (0%)         | 2<br>(20%)      | 4<br>(17%)      | 7<br>(18%)      | 10<br>(27%)     | 10<br>(17%)     | 33<br>(19%)      |
| Legal Issue            | 0 (0%)         | 1<br>(10%)      | 2 (9%)          | 8<br>(21%)      | 4<br>(11%)      | 7<br>(12%)      | 22<br>(13%)      |
| Fame-Seeking           | 1<br>(20%)     | 0 (0%)          | 1 (4%)          | 3 (8%)          | 1 (3%)          | 6<br>(10%)      | 12 (7%)          |

## Media Coverage - Partial List

- Associated Press (December 29, 2020)  
In a year of pain, one silver lining: Fewer mass shootings  
Re-printed nationally - Washington Post, ABC News, NBC News Chicago, MSN
- Ontic - Protective Intelligence Podcast (November 4, 2020)  
The patterns behind mass shootings and the creation of The Violence Project
- The Independent (October 29, 2020)  
The one Trump record he doesn't want you to talk about: An unprecedented number of mass shootings
- A Peace of My Mind Podcast (August 27, 2020)  
A Peace of My Mind: Cry Out
- Bloomberg News – Government (August 10, 2020)  
Virus job losses, evictions seen risking mass attacks in future
- KETK Fox News Austin (August 3, 2020)  
No mass shootings in the U.S. since the pandemic started - what about once it's over?
- The Trace (July 29, 2020)  
Daily bulletin: Expanded mass shootings database fleshes out the characteristics of perpetrators
- Associated Press (July 29, 2020)  
Database of mass shooters revised and expanded  
Reprint: Business Insider; Financial Times; Yahoo News.
- The Trace (July 29, 2020)  
Expanded mass shootings database fleshes out the characteristics of perpetrators
- Hamline University (July 28, 2020)  
Mass shooter database updated thanks to Hamline Students
- Kaiser Health News (May 29, 2020)  
Perfect storm? Experts warn as reopenings begin, mass shootings could start again
- The Crime Report (May 29, 2020)  
As quarantine ends, will mass shootings return?
- The Washington Post (May 28, 2020)  
Gatherings as states re-open could spell return of another dark American phenomenon: Mass shootings
- Newsgram (May 10, 2020)  
Here's the full history of mass shooters from U.S.A.
- Vice News (March 15, 2020)  
This woman survived a mass shooting and is working to prevent the next one
- Los Angeles Times (February 26, 2020)  
How many mass shootings might have been prevented by stronger gun laws?
- Voice of America Special Report (February 15, 2020)  
History of mass shooters
- The Takeaway (February 13, 2020)  
Parents are fighting gun violence through their school boards.
- Post Bulletin (February 13, 2020)  
NEA Report: Just say no to active shooter drills.



NBC News (February 10, 2020)  
[How moms are quietly passing gun safety policy through school boards](#)

The Trace (January 3, 2020)  
[2020 will be a big year for the gun issue.](#)

ABC News Tampa Bay (January 1, 2020)  
[New database tracks commonalities among mass shooters](#)

WITF (December 27, 2019)  
[2019 Smart Talk top stories - research on guns and mass shooters.](#)

The Post and Courier (December 18, 2019)  
[Dorchester school district to offer active-shooter survival training to community in 2020.](#)

USA Today (December 2, 2019)  
[A New York village averted a potential school shooting. Parents are still furious.](#)

Star Tribune Editorial (November 27, 2019)  
[Gathering useful data on mass shootings](#)

9 News (November 23, 2019)  
[Research reveals common traits behind mass shootings](#)

Fox News (November 22, 2019)  
[Mass shooters have four things in common, new study finds](#)

Diversity Inc (November 21, 2019)  
[The Violence Project database finds most mass shooters have four things in common](#)

Public News Service (November 21, 2019)  
[Report: most mass shooters have 4 things in common](#)

Associated Press (November 20, 2019)  
[Minnesota Violence Project Aims to Understand Mass Shootings](#)  
 Nationally syndicated, e.g., [ABC News](#), [New York Times](#), [Washington Post](#), [US News and World Report](#), [The Joplin Globe](#), [San Francisco Chronicle](#), [Valley News Live](#), [Houston Chronicle](#), [St. Cloud Times](#), [KNSI](#), [Portland Press Herald](#), [Voice of America](#)

We Are Mitu (November 20, 2019)  
[What makes a mass shooter? New study stresses the need for prevention](#)

Mic (November 20, 2019)  
[New study on mass shootings explores the traits that define perpetrators](#)

Daily Mail (November 20, 2019)  
[Almost all US mass shooters since 1966 have four things in common: Childhood trauma, a personal crisis, examples that validate their feelings, and access to a firearm](#)

KSTP-TV (November 19, 2019)  
[Local researchers release largest study on mass shootings](#)

Pioneer Press (November 19, 2019)  
[St. Paul profs compiled database of U.S. mass shooters... and corresponded with six of them](#)

MPR News (November 19, 2019)  
[Minnesota-made tool tracks the how and why behind mass shootings](#)

Dakota Free Press (November 19, 2019)  
[Mass shooters mostly male, increasingly driven by Trumpist hate](#)

Vice (November 19, 2019)  
[Nearly all mass shooters since 1966 have had 4 things in common](#)

Database of Mass Shooters Compiled by Hamline Students Released for Public Use

Press release (November 19, 2019)  
Markets Insider; Herald Review; Mesabi Daily News; Yahoo!; PR Newswire; UB University Business

KSTP-TV (November 18, 2019)  
Raising red flags: Minnesota police chiefs and sheriffs weigh in on gun law

KQED News (November 18, 2019)  
Santa Clarita school shooter fits profile of other K-12 shooters, according to new database

Society for Human Resource Management (November 18, 2019)  
Active-shooter security drills are 'ineffective,' researchers find

Cal Matters (November 15, 2019)  
Science has identified common threads in school shootings  
 Reprinted: San Francisco Chronicle

Star Tribune (November 15, 2019)  
Hamline, Metro State professors create a database to shed light on mass shootings

FiveThirtyEight (November 14, 2019)  
Why nonprofits can't research gun violence as well as the feds

The Daily Campus (November 15, 2019)  
Big brain energy: The psychology of 'no notoriety'

Crime Report (November 14, 2019)  
Can mass shooter attacks be prevented?

Wall Street Journal (November 13, 2019)  
Mass shootings raise questions about security and training  
 Reprints: Kaiser Health News, Politico

Reader's Digest (November 12, 2019)  
Years of research finds that most school shooters have 4 things in common

The Hill (November 5, 2019)  
Mass shooters are contagious. How can they be stopped?

ABS-CBN News – Philippines (October 9, 2019)  
Germany shooting livestreamed despite efforts by tech firms

Newsweek (October 2, 2019)  
Gen Z, millennials twice as concerned about active shooters as baby boomers, survey

Reader's Digest (October 1, 2019)  
10 undeniable facts about mass shootings in America

Inside Higher Ed - Academic Minute (September 30, 2019)  
Mass Shooter Database

Interview with CNN (September 24, 2019)  
Companies can use VR to train employees for mass shootings. But should they?

Interview with ABC News (September 6, 2019)  
Campaign says new gun control measures may pose political problem for Trump

Interview with Vox (September 6, 2019)  
Mass Shootings: The case against mass panic

The Daily Wire (September 2, 2019)  
Report details stunning amount of free publicity media gives mass shooters

In Sickness and In Health Podcast (September 2019)  
Gun violence in America: The psychology of mass shooters

Insider (August 27, 2019)  
Americans can't just arrest its way out of a mass shooting epidemic, experts say

Campus Security Magazine (August 29, 2019)  
At least 30 arrested for mass shooting threats in past three weeks

Time Magazine (August 23, 2019)  
Have police really thwarted more mass shootings since El Paso and Dayton, or are we just paying closer attention?

Houston Chronicle (August 23, 2019)  
We can address mass shootings by reducing childhood trauma and mitigating its impact

Business Insider (August 22, 2019)  
Police are trying to arrest their way out of a mass shooting epidemic, and experts warn it could have dire consequences

Market Watch (August 22, 2019)  
Can anything be done to prevent gun violence at work?

Columbia Journalism Review (August 21, 2019)  
Why it's wrong to blame mass killings on mental illness

Ed Surge (August 15, 2019)  
Can teachers be trained to prevent future school shootings? Researchers say yes

KFOX TV (August 15, 2019)  
Do mass shooters share common traits?

Pittsburgh NPR - WESA (August 15, 2019)  
Active shooter drills can harm participants' mental health

Public Source (August 14, 2019)  
Active shooter drills have become common in Pittsburgh-area schools but mental health effects remain unknown

Medium (August 14, 2019)  
Why isn't there already an algorithm to predict school shooters?

WITF Smart Talk (August 13, 2019)  
Research on mass shooters

KARE 11 News (August 12, 2019)  
School shooters—the data says, running our kids thru lockdown drills may not be the best plan

Wisconsin Public Radio (August 12, 2019)  
What are warning signs of mass violence, and what should we do when we see them?

NBC News National (August 11, 2019)  
How suicide prevention may help stop mass killers before they start shooting

New Zealand Herald (August 11, 2019)  
The making of a mass shooter: What contributes to a killer opening fire on strangers?

San Francisco Examiner (August 11, 2019)  
Trying to understand and prevent mass shootings

New York Times (August 10, 2019)  
A common trait among mass killers: hatred toward women

Star Tribune (August 10, 2019)  
'Modern gun' or weapon of war? Carnage heightens scrutiny of popular, widely available assault rifles

Wall Street Journal (August 8, 2019)

Lost in life, El Paso suspect found a dark world online  
Ken Rudin's Political Junkie (August 8, 2019)  
Episode 289: Guns, hate, and inaction

Med Page (August 8, 2019)  
Mass shootings and mental illness: a teaching moment?

The Trace (August 7, 2019)  
Daily Bulletin: The FBI Opened a Domestic Terror Investigation into the Gilroy Shooting

CBS News National (August 6, 2019)  
Video game makers face backlash after El Paso shooting

WCCO News (August 6, 2019)  
Violence project seeks to shift focus from reaction to prevention in mass shootings

National Public Radio (August 6, 2019)  
Mass shootings can be contagious, research shows  
Republished on KERA News, KCRW, KUNC, Northern Public Radio, South Carolina Public Radio, Wyoming Public Radio, Hawaii Public Radio

CBS News National (August 6, 2019)  
Mental Illness isn't main driver of mass shootings, experts say

CBS This Morning (August 6, 2019)  
Commonalities found among mass shooters

The Daily Public (August 6, 2019)  
Grievances, access to guns, notoriety associated with shootings  
Re-prints on Echo Press, Duluth News Tribune, Post Bulletin, Southern Minn.

Washington Post (August 6, 2019)  
The Health 202: Trump blamed mental illness for mass shootings. The reality is more complicated  
Republished on SFGATE, USA News Hub.

Yahoo Entertainment (August 6, 2019)  
What will prevent white nationalist attacks?

Global News (August 6, 2019)  
Here's what we know about the suspected gunmen in the El Paso, Dayton shootings

Cheddar (August 6, 2019)  
Four things most mass shooters have in common

MPR News – Angela Davis Show, All Things Considered (August 5, 2019)  
What do we know about mass shooters?

NBC News National (August 5, 2019)  
Mass shootings: Experts say violence is contagious, and 24/7 news cycle doesn't help

NBC News National (August 5, 2019)  
Do Something!': Mass shootings in Texas and Ohio stun nation: The Morning Rundown

Washington Post (August 5, 2019)  
Politicians blame video games for the El Paso shooting. It's an old claim that's not backed by research

The Atlantic (August 5, 2019)  
Why many mass shooters are 'loners'

Huffington Post (August 5, 2019)  
Mass shooters seek 'validation' for their murderous attacks, say experts for DOJ

NBC News MSN (August 5, 2019)

Mass Shootings: Experts say violence is contagious, and 24/7 news cycle doesn't help  
NBC7 San Diego (August 5, 2019)  
Shootings tied to white extremists on rise, workplace shootings more common  
CNN Tonight with Don Lemon (August 5, 2019)  
CNN Tonight  
Minnesota Public Radio (July 24, 2019)  
MN Researchers Roll Out Revolutionary Approach to School Safety Training  
Partial List: Austin Daily Herald, Campus Security and Life Safety, SouthernMinn  
Interview with ProPublica (June 25, 2019)  
Aggression detectors: The unproven, invasive surveillance technology schools are using to monitor students  
National Public Radio – 1A with Joshua Johnson (June 4, 2019)  
How can we prevent workplace shootings?  
Market Watch (May 29, 2019)  
How your company can help prevent a disgruntled or mentally ill employee from becoming an active shooter  
Philly Daily News (May 3, 2019)  
Many campus shootings have similarities. Studying them might prevent more tragedy, researchers say  
Associated Press (March 30, 2019)  
Experts: Minnesota strategy on school gun attacks wrong  
Partial List: U.S. News and World Report, San Francisco Chronicle, Washington Times  
Minnesota Public Radio (March 29, 2019)  
Current school safety measures aren't enough to prevent shootings  
Mankato Free Press (March 28, 2019)  
School safety: Fund more counselors for students' emotional health  
Capitol View (March 28, 2019)  
Daily Digest: School safety and guns  
Minnesota Public Radio (March 27, 2019)  
Minnesota researchers say we're still getting school safety wrong  
Re-published in Austin Daily Herald  
One-hour segment with Kerri Miller on Minnesota Public Radio (February 14, 2019)  
One year after Parkland, are Americans equipped to prevent school shootings?  
WCCO Radio (November 10, 2019)  
Researchers: Suicidal Behavior Precedes Mass Shootings, But No Real Pattern  
Kare 11 News (November 8, 2018)  
Study could soon bring student researchers face to face with mass shooters  
KSTP News (November 8, 2018)  
MN researchers mass shooter database gets federal funding  
Kare 11 In the News (July 3, 2018)  
Local researchers compile mass shooting database  
Fatherly (May 1, 2018)  
Active shooter drills are traumatizing a generation  
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